

# INTERNATIONAL SEARCH REPORT

Internat Application No  
PCT/US2004/031099

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01R33/28

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01R

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                      | Relevant to claim No. |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X          | G. LAUCK ET AL: "Effects of nuclear magnetic resonance imaging on cardiac pacemakers."<br>PACE,<br>vol. 18, August 1995 (1995-08), pages 1549-1555, XP008041869<br>ISSN: 0147-8389<br>the whole document                | 13-35                 |
| X          | P.M. SHAH, K.A. ELLENBOGEN: "Life after Pacemaker Implantation..."<br>CARDIOLOGY IN REVIEW,<br>vol. 9, 2001, pages 193-201, XP008041930<br>pages 196: "Hospital Environment" - p. 199<br>2nd paragraph<br>-----<br>-/-- | 13-35                 |

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

24 January 2005

Date of mailing of the international search report

01/02/2005

Name and mailing address of the ISA

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages                                                                                                                                                                        | Relevant to claim No. |
|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| A          | WO 03/063962 A (MEDTRONIC INC.)<br>7 August 2003 (2003-08-07)<br>the whole document<br>-----                                                                                                                                                              | 13-35                 |
| A          | J.A. ERLEBACHER ET AL.: "Effect of<br>magnetic resonance imaging on DDD<br>pacemakers."<br>THE AMERICAN JOURNAL OF CARDIOLOGY,<br>vol. 57, 15 February 1986 (1986-02-15),<br>pages 437-440, XP008041784<br>ISSN: 0002-9149<br>the whole document<br>----- | 13-35                 |
| A          | W. PAVLICEK ET AL: "The effects of<br>nuclear magnetic resonance on patients<br>with cardiac pacemakers."<br>RADIOLOGY,<br>vol. 147, April 1983 (1983-04), pages<br>149-153, XP008041872<br>ISSN: 0033-8419<br>the whole document<br>-----                | 13-35                 |

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims Nos.: 1 - 12, 36

Claims 1 - 12 and 36 do not meet the requirements of:

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy.

These claims specify a method comprising the steps of:

- identifying information associated with one or more MRI electromagnetic radiation bursts, and
  - adjusting telemetry of a medical device during said e-m radiation bursts
- and thereby influencing or adjusting the therapy delivered by said medical device during said e-m radiation bursts; e.g. forcing a cardiac pacemaker to convert from synchronous mode to asynchronous mode and to no longer transmit signals by telemetry or to ignore signals received by telemetry that otherwise would initiate a cardiac stimulation pulse.

As far as the fact that "a medical device" can be:

- a therapeutic device, such as a pacemaker-cardioverter-defibrillator, brainstimulator, gastric system stimulator or muscle stimulator, implantable lower colon stimulator, implantable drug or beneficial agent dispenser or pump, implantable cardiac signal loop or other types of recorder or monitor, implantable gene therapy delivery device, implantable incontinence prevention or monitoring device, implanted insulin pump or monitoring device is not explicitly excluded in the claims 'as is not explicitly excluded in the present claims!', these claims include the possibility that "a medical device" is one of the therapeutic devices mentioned above. Furthermore, another application of "a medical device" than in one of the cases mentioned above is not disclosed in the description and cannot be perceived, which means that the devices mentioned above cannot be excluded without extending the subject-matter beyond the content of the application as filed, contrary to the requirements of Article 34(2)(b) PCT.

Therefore, these claims specify a method of therapy practised on the human body, they do not meet the requirements of the Article and Rules mentioned above, and consequently, they are not allowable under Article 34(4)(a)(i), Rule 39.1(iv) and Rule 67.1(iv) PCT. Therefore, these claims have not been searched.

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### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1 - 12, 36  
because they relate to subject matter not required to be searched by this Authority, namely:  
see FURTHER INFORMATION sheet PCT/ISA/210
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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International Application No  
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| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s) | Publication<br>date |
|-------------------------------------------|---------------------|----------------------------|---------------------|
| WO 03063962 A                             | 07-08-2003          | US 2003144706 A1           | 31-07-2003          |
|                                           |                     | CA 2472060 A1              | 07-08-2003          |
|                                           |                     | EP 1469913 A1              | 27-10-2004          |
|                                           |                     | WO 03063962 A1             | 07-08-2003          |
|                                           |                     | US 2003144705 A1           | 31-07-2003          |
| <hr/>                                     |                     |                            |                     |